TENT COOPERATION TREAT

ERVICE BREVETS & CONTRATS

From the INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

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FRANCE

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WRITTEN OPINION

Rec'd PCT/PTO 08 MAR 2005

| | | Date of mailing (day/month/year) | 03.09.2004 | |
|--|---|----------------------------------|--|--|
| Applicant's or agent's file reference WO 21.1110 — WL - PL | | REPLY DUE | within 3 month(s) from the above date of mailing | |
| International application No. PCT/EP 03/10005 | International filing date (day/month/year) 08.09.2003 | | Priority date (day/month/year) 10.09.2002 | |
| International Patent Classification (II E21B47/10 | PC) or both national classificatio | n and IPC | 4T. 3DEC 2004 | |
| Applicant SERVICES PETROLIERS SO | CHLUMBERGER | | | |

- This written opinion is the second drawn up by this International Preliminary Examining Authority. 1.
- 2. This opinion contains indications relating to the following items:
 - Ø Basis of the opinion
 - ш **Priority**
 - Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Ш
 - Lack of unity of invention
 - \boxtimes Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VΙ Certain documents cited
 - VII Certain defects in the international application
 - VIII 🗆 Certain observations on the international application
- 3. The applicant is hereby invited to reply to this opinion.
 - When?

See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How?

Also:

By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

For an additional opportunity to submit amendments, see Rule 66.4.

For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.

For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4 The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 10.01.2005

Name and mailing address of the international preliminary examining authority:



European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016

Authorized Officer

Dantinne, P

Formalities officer (incl. extension of time limits)

Ter Haar, H

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| I.# Basis | of the | opinion |
|-----------|--------|---------|
|-----------|--------|---------|

| 1. | With regard to the elements of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"): |
|----|---|
| | |

| | De | scription, Pages | | |
|----|--------------|---|---|--|
| | 1-8 | | as originally filed | |
| | Cla | ims, Numbers | | |
| | 1-12 | | received on 18.06.2004 with letter of 14.06.2004 | |
| | Dra | wings, Sheets | | |
| | 1/2- | 2/2 | as originally filed | |
| 2. | Wit lang | h regard to the langu guage in which the in | age, all the elements marked above were available or furnished to this Authority in the ternational application was filed, unless otherwise indicated under this item. | |
| | The | ese elements were av | ailable or furnished to this Authority in the following language: , which is: | |
| | | the language of pub | anslation furnished for the purposes of the international search (under Rule 23.1(b)). lication of the international application (under Rule 48.3(b)). anslation furnished for the purposes of international preliminary examination (under 3). | |
| 3. | Witl inte | With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing: | | |
| | | contained in the inte | rnational application in written form. | |
| | | filed together with th | e international application in computer readable form. | |
| | | furnished subsequer | ntly to this Authority in written form. | |
| | | furnished subsequer | ntly to this Authority in computer readable form. | |
| | | The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. | | |
| | | The statement that t listing has been furn | he information recorded in computer readable form is identical to the written sequence ished. | |
| 4. | The | amendments have r | esulted in the cancellation of: | |
| | | the description, | pages: | |
| | | the claims, | Nos.: | |
| | | the drawings, | sheets: | |
| 5. | | This opinion has been been considered to | en established as if (some of) the amendments had not been made, since they have go beyond the disclosure as filed (Rule 70.2(c)). | |
| 6 | Δdd | litional observations | it nocessany | |

- V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Claims

1,2,7-10,12

Inventive step (IS)

Claims

1,2,7-10,12

Industrial applicability (IA)

Claims

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: GB 2.294.074 A D2: FR 1.549.531 A

1) Document D1 discloses (the references in parentheses applying to this document): (Fig. 1, page 7 line 31 - page 11 line 17)

A measuring sonde (10) for a hydrocarbon well, the sonde comprising a main body (12), a downstream arm (54), and an upstream arm (52), at least one of said arms being fitted with measurement means (64,48) for determining the characteristics of the fluid flowing in the well, wherein downstream and upstream arms are connected:

- to the main body via a first and second sliding pivot links (60 and 44); and
- to respectively first and second ends of a skid (32) via first and second pivot links (56 and 38).

The skid in D1 is considered to be the member between links 56 and 38 and does not have to include member 34 which is a detector between link 36 and 56. D1 discloses all technical features of claim 1 and is also suitable to solve the problem stated in the application.

The subject-matter of claim 1 is therefore not new (Article 33(2) PCT).

- 2) At least dependent claims 2, 7-10 and 12 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to novelty and/or inventive step, the reasons being as follows:
- claim 2: abutments to limit pivoting are known in the art.
- claim 7: D2 discloses an extension arm with parallel blades linked by bridges (see fig.2).
- claim 8: D1 discloses an off-center axis body relative to the well axis.

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, claim 9: D1 discloses a retractable sonde.

claim 10: D1 discloses the use of a motor (234) to move the arms.

claim 12: D1 discloses a spinner (48) on the upstream arm.